

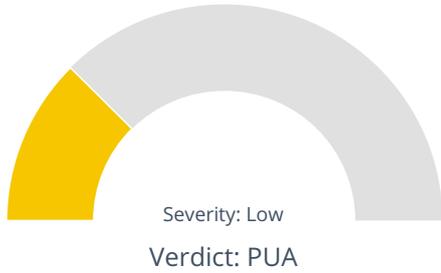
# Summary

**File Name:** 176928788.exe  
**File Type:** PE32 executable (GUI) Intel 80386, for MS Windows  
**SHA1:** aa45509ac9b2d11e55784eddc52f966444d77099  
**MD5:** a47573d164d84977ae6adf3db7119c4e

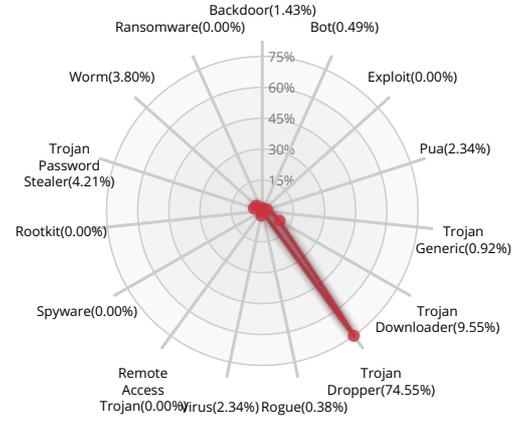


Valkyrie Final Verdict

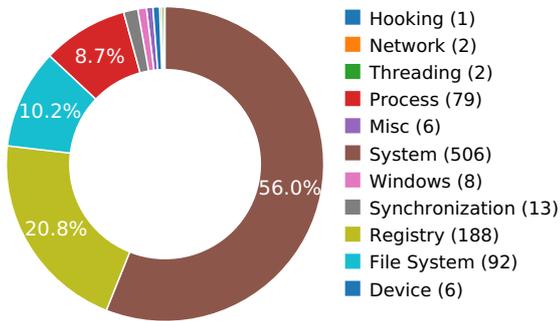
## DETECTION SECTION



## CLASSIFICATION



## HIGH LEVEL BEHAVIOR DISTRIBUTION



## ACTIVITY OVERVIEW

|  |   |          |
|--|---|----------|
| Information Discovery                              | 1 | (20.00%) |
| Networking   | 1 | (20.00%) |
| Malware Analysis System Evasion                    | 1 | (20.00%) |
| Hooking and other Techniques for Hiding Protection | 1 | (20.00%) |
| Data Obfuscation                                   | 1 | (20.00%) |

## Activity Details

### INFORMATION DISCOVERY



Reads data out of its own binary image

Show sources

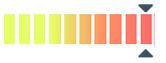
### NETWORKING



Performs some HTTP requests

Show sources

### MALWARE ANALYSIS SYSTEM EVASION



Attempts to restart the guest VM

Show sources

### HOOKING AND OTHER TECHNIQUES FOR HIDING PROTECTION



Creates RWX memory

Show sources

### DATA OBFUSCATION



Drops a binary and executes it

Show sources

# Behavior Graph

22:37:20

22:37:21

22:37:21

## PID 2308

22:37:20 **Create Process** The malicious file created a child process as aa45509ac9b2d11e55784eddc52f966444d77099.exe (**PPID 2192**)

22:37:20 VirtualProtectEx

22:37:20 NtReadFile  
22:37:20 [ 4 times ]

22:37:20 **Create Process**

## PID 348

22:37:20 **Create Process** The malicious file created a child process as aa45509ac9b2d11e55784eddc52f966444d77099.tmp (**PPID 2308**)

22:37:21 **Create Process**

## PID 2180

22:37:21 **Create Process** The malicious file created a child process as shutdown.exe (**PPID 348**)

22:37:21 **InitiateSystemShutdow**

## Behavior Summary

### ACCESSED FILES

|  |
|--|
| C:\Windows\SysWOW64\en-US\KERNELBASE.dll.mui   |
| C:\Users\user\AppData\Local\Temp\netmsg.dll  |
| C:\Windows\System32\netmsg.dll   |
| C:\Users\user\AppData\Local\Temp\aa45509ac9b2d11e55784eddc52f966444d77099.exe              |
| C:\Users\user\AppData\Local\Temp   |
| C:\Users\user\AppData\Local\Temp\is-7GR0E.tmp  |
| C:\Users\user\AppData\Local\Temp\is-7GR0E.tmp\aa45509ac9b2d11e55784eddc52f966444d77099.tmp |
| C:\Windows\Globalization\Sorting\sortdefault.nls   |
| C:\Windows\Fonts\staticcache.dat   |
| \Device\KsecDD   |
| C:\Users\user\AppData\Local\Temp\is-7GR0E.tmp\netmsg.dll                                   |
| C:\Users\user\AppData\Local\Temp\is-2I3F7.tmp  |
| C:\Users\user\AppData\Local\Temp\is-2I3F7.tmp\_isetup                                      |
| C:\Users\user\AppData\Local\Temp\is-2I3F7.tmp\_isetup\_setup64.tmp                         |
| C:\Users\user\AppData\Local\Temp\is-2I3F7.tmp\license.key                                  |
| C:\Users\user\AppData\Local\Temp\is-2I3F7.tmp\license.ENU                                  |
| C:\Users\user\AppData\Local\Temp\is-2I3F7.tmp\license.ENU.DLL                              |
| C:\Users\user\AppData\Local\Temp\is-2I3F7.tmp\license.EN                                   |
| C:\Users\user\AppData\Local\Temp\is-2I3F7.tmp\license.EN.DLL                               |
| C:\Users\user\AppData\Local\Temp\is-2I3F7.tmp\*  |
| C:\Users\user\AppData\Local\Temp\is-2I3F7.tmp\_isetup\*                                    |

### READ REGISTRY KEYS

|  |
|--|
| HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows NT\CurrentVersion\GRE_Initialize\DisableMetaFiles          |
| HKEY_LOCAL_MACHINE\SYSTEM\ControlSet001\Control\Nls\Locale\00000409                                      |
| HKEY_LOCAL_MACHINE\SYSTEM\ControlSet001\Control\Nls\Language Groups\1                                    |
| HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows NT\CurrentVersion\LanguagePack\DataStore_V1.0\Disable      |
| HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows NT\CurrentVersion\LanguagePack\DataStore_V1.0\DataFilePath |
| HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows NT\CurrentVersion\LanguagePack\SurrogateFallback\Plane1    |
| HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows NT\CurrentVersion\LanguagePack\SurrogateFallback\Plane2    |
| HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows NT\CurrentVersion\LanguagePack\SurrogateFallback\Plane3    |
| HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows NT\CurrentVersion\LanguagePack\SurrogateFallback\Plane4    |
| HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows NT\CurrentVersion\LanguagePack\SurrogateFallback\Plane5    |

|   |
|---|
| HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows NT\CurrentVersion\LanguagePack\SurrogateFallback\Plane6   |
| HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows NT\CurrentVersion\LanguagePack\SurrogateFallback\Plane7   |
| HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows NT\CurrentVersion\LanguagePack\SurrogateFallback\Plane8   |
| HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows NT\CurrentVersion\LanguagePack\SurrogateFallback\Plane9   |
| HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows NT\CurrentVersion\LanguagePack\SurrogateFallback\Plane10  |
| HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows NT\CurrentVersion\LanguagePack\SurrogateFallback\Plane11  |
| HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows NT\CurrentVersion\LanguagePack\SurrogateFallback\Plane12  |
| HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows NT\CurrentVersion\LanguagePack\SurrogateFallback\Plane13  |
| HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows NT\CurrentVersion\LanguagePack\SurrogateFallback\Plane14  |
| HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows NT\CurrentVersion\LanguagePack\SurrogateFallback\Plane15  |
| HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows NT\CurrentVersion\LanguagePack\SurrogateFallback\Plane16  |
| HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\CTF\TIP\{0000897b-83df-4b96-be07-0fb58b01c4a4}\LanguageProfile\0x00000000\{0001bea3-ed56-483d-a2e2-aeae25577436}\Enable |
| HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\Microsoft\CTF\EnableAnchorContext   |
| HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\Microsoft\Windows\CurrentVersion\ProgramFilesDir  |
| HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\Microsoft\Windows\CurrentVersion\CommonFilesDir   |
| HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows\CurrentVersion\ProgramFilesDir  |
| HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows\CurrentVersion\CommonFilesDir   |
| HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows NT\CurrentVersion\RegisteredOwner   |
| HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows NT\CurrentVersion\RegisteredOrganization  |
| HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\SQMClient\Windows\DisabledProcesses\A2D5EDFB  |
| HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\SQMClient\Windows\DisabledSessions\MachineThrottling  |
| HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\SQMClient\Windows\DisabledSessions\GlobalSession  |
| HKEY_LOCAL_MACHINE\SYSTEM\ControlSet001\services\crypt32\DebugHeapFlags   |
| HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\Microsoft\Windows\CurrentVersion\Internet Settings\DisableImprovedZoneCheck   |
| HKEY_LOCAL_MACHINE\SOFTWARE\Policies\Microsoft\Windows\CurrentVersion\Internet Settings\Security_HKLM_only  |
| HKEY_CURRENT_USER\Software\Microsoft\RestartManager\Session0000\Sequence  |
| HKEY_CURRENT_USER\Software\Microsoft\RestartManager\Session0000\RegFiles0000  |
| HKEY_CURRENT_USER\Software\Microsoft\RestartManager\Session0000\RegSvcs0000   |
| HKEY_CURRENT_USER\Software\Microsoft\RestartManager\Session0000\RegProcs0000  |
| HKEY_CURRENT_USER\Software\Microsoft\RestartManager\Session0000\JSCount   |
| HKEY_CURRENT_USER\Software\Microsoft\RestartManager\Session0000\ESCount   |
| HKEY_CURRENT_USER\Software\Microsoft\RestartManager\Session0000\RRCount   |
| HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\Microsoft\Windows\Windows Error Reporting\WMR\Disable   |
| HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\Microsoft\Windows\CurrentVersion\Reliability\ShutdownIgnorePredefinedReasons  |

HKEY\_LOCAL\_MACHINE\SYSTEM\ControlSet001\Control\Nls\CustomLocale\en-US

HKEY\_LOCAL\_MACHINE\SYSTEM\ControlSet001\Control\Nls\ExtendedLocale\en-US

### MODIFIED FILES

C:\Users\user\AppData\Local\Temp\is-7GR0E.tmp\aa45509ac9b2d11e55784eddc52f966444d77099.tmp

C:\Users\user\AppData\Local\Temp\is-2I3F7.tmp\\_isetup\\_setup64.tmp

C:\Users\user\AppData\Local\Temp\is-2I3F7.tmp\license.key

### RESOLVED APIS

kernel32.dll.SetDllDirectoryW

kernel32.dll.SetSearchPathMode

kernel32.dll.SetProcessDEPPolicy

kernel32.dll.Wow64DisableWow64FsRedirection

kernel32.dll.Wow64RevertWow64FsRedirection

kernel32.dll.GetUserDefaultUILanguage

comctl32.dll.RegisterClassNameW

kernel32.dll.SortGetHandle

kernel32.dll.SortCloseHandle

uxtheme.dll.ThemeInitApiHook

user32.dll.IsProcessDPIAware

dwmapi.dll.DwmIsCompositionEnabled

uxtheme.dll.EnableThemeDialogTexture

advapi32.dll.UnregisterTraceGuids

gdi32.dll.GetLayout

gdi32.dll.GdiRealizationInfo

gdi32.dll.FontIsLinked

advapi32.dll.RegOpenKeyExW

advapi32.dll.RegQueryInfoKeyW

gdi32.dll.GetTextFaceAliasW

advapi32.dll.RegEnumValueW

advapi32.dll.RegCloseKey

advapi32.dll.RegQueryValueExW

gdi32.dll.GetFontAssocStatus

advapi32.dll.RegQueryValueExA

advapi32.dll.RegEnumKeyExW

gdi32.dll.GdiIsMetaPrintDC

|   |
|---|
| ole32.dll.CoInitializeEx                          |
| ole32.dll.CoUninitialize                          |
| cryptbase.dll.SystemFunction036                   |
| ole32.dll.CoRegisterInitializeSpy                 |
| ole32.dll.CoRevokeInitializeSpy                   |
| uxtheme.dll.OpenThemeData                         |
| uxtheme.dll.CloseThemeData                        |
| uxtheme.dll.DrawThemeBackground                   |
| uxtheme.dll.DrawThemeText                         |
| uxtheme.dll.GetThemeBackgroundContentRect         |
| uxtheme.dll.GetThemePartSize                      |
| uxtheme.dll.GetThemeTextExtent                    |
| uxtheme.dll.GetThemeTextMetrics                   |
| uxtheme.dll.GetThemeBackgroundRegion              |
| uxtheme.dll.HitTestThemeBackground                |
| uxtheme.dll.DrawThemeEdge                         |
| uxtheme.dll.DrawThemeIcon                         |
| uxtheme.dll.IsThemePartDefined                    |
| uxtheme.dll.IsThemeBackgroundPartiallyTransparent |
| uxtheme.dll.GetThemeColor                         |
| uxtheme.dll.GetThemeMetric                        |
| uxtheme.dll.GetThemeString                        |
| uxtheme.dll.GetThemeBool                          |
| uxtheme.dll.GetThemeInt                           |
| uxtheme.dll.GetThemeEnumValue                     |
| uxtheme.dll.GetThemePosition                      |
| uxtheme.dll.GetThemeFont                          |
| uxtheme.dll.GetThemeRect                          |
| uxtheme.dll.GetThemeMargins                       |
| uxtheme.dll.GetThemeIntList                       |
| uxtheme.dll.GetThemePropertyOrigin                |
| uxtheme.dll.SetWindowTheme                        |
| uxtheme.dll.GetThemeFilename                      |
| uxtheme.dll.GetThemeSysColor                      |

uxtheme.dll.GetThemeSysColorBrush

uxtheme.dll.GetThemeSysBool

uxtheme.dll.GetThemeSysSize

uxtheme.dll.GetThemeSysFont

uxtheme.dll.GetThemeSysString

uxtheme.dll.GetThemeSysInt

uxtheme.dll.IsThemeActive

uxtheme.dll.IsAppThemed

uxtheme.dll.GetWindowTheme

uxtheme.dll.IsThemeDialogTextureEnabled

uxtheme.dll.GetThemeAppProperties

uxtheme.dll.SetThemeAppProperties

uxtheme.dll.GetCurrentThemeName

uxtheme.dll.GetThemeDocumentationProperty

uxtheme.dll.DrawThemeParentBackground

### DELETED FILES

C:\Users\user\AppData\Local\Temp\is-7GR0E.tmp\aa45509ac9b2d11e55784eddc52f966444d77099.tmp

C:\Users\user\AppData\Local\Temp\is-7GR0E.tmp

C:\Users\user\AppData\Local\Temp\is-2I3F7.tmp\license.key

C:\Users\user\AppData\Local\Temp\is-2I3F7.tmp\\_isetup\\_setup64.tmp

C:\Users\user\AppData\Local\Temp\is-2I3F7.tmp\\_isetup

C:\Users\user\AppData\Local\Temp\is-2I3F7.tmp

### DELETED REGISTRY KEYS

HKEY\_CURRENT\_USER\Software\Microsoft\RestartManager\Session0000\Sequence

HKEY\_CURRENT\_USER\Software\Microsoft\RestartManager\Session0000\SessionHash

HKEY\_CURRENT\_USER\Software\Microsoft\RestartManager\Session0000\Owner

### REGISTRY KEYS

HKEY\_LOCAL\_MACHINE\Software\Microsoft\Windows NT\CurrentVersion\GRE\_Initialize

HKEY\_LOCAL\_MACHINE\SOFTWARE\Microsoft\Windows NT\CurrentVersion\GRE\_Initialize\DisableMetaFiles

HKEY\_LOCAL\_MACHINE\System\CurrentControlSet\Control\Nls\Locale

HKEY\_LOCAL\_MACHINE\System\CurrentControlSet\Control\Nls\Locale\Alternate Sorts

HKEY\_LOCAL\_MACHINE\System\CurrentControlSet\Control\Nls\Language Groups

HKEY\_LOCAL\_MACHINE\SYSTEM\ControlSet001\Control\Nls\Locale\00000409

|   |
|---|
| HKEY_LOCAL_MACHINE\SYSTEM\ControlSet001\Control\Nls\Language Groups\1   |
| HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows NT\CurrentVersion\FontLink\SystemLink   |
| HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows NT\CurrentVersion\LanguagePack\DataStore_V1.0   |
| HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows NT\CurrentVersion\LanguagePack\DataStore_V1.0\Disable   |
| HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows NT\CurrentVersion\LanguagePack\DataStore_V1.0\DataFilePath  |
| HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows NT\CurrentVersion\LanguagePack\SurrogateFallback  |
| HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows NT\CurrentVersion\LanguagePack\SurrogateFallback\Plane1   |
| HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows NT\CurrentVersion\LanguagePack\SurrogateFallback\Plane2   |
| HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows NT\CurrentVersion\LanguagePack\SurrogateFallback\Plane3   |
| HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows NT\CurrentVersion\LanguagePack\SurrogateFallback\Plane4   |
| HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows NT\CurrentVersion\LanguagePack\SurrogateFallback\Plane5   |
| HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows NT\CurrentVersion\LanguagePack\SurrogateFallback\Plane6   |
| HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows NT\CurrentVersion\LanguagePack\SurrogateFallback\Plane7   |
| HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows NT\CurrentVersion\LanguagePack\SurrogateFallback\Plane8   |
| HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows NT\CurrentVersion\LanguagePack\SurrogateFallback\Plane9   |
| HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows NT\CurrentVersion\LanguagePack\SurrogateFallback\Plane10  |
| HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows NT\CurrentVersion\LanguagePack\SurrogateFallback\Plane11  |
| HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows NT\CurrentVersion\LanguagePack\SurrogateFallback\Plane12  |
| HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows NT\CurrentVersion\LanguagePack\SurrogateFallback\Plane13  |
| HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows NT\CurrentVersion\LanguagePack\SurrogateFallback\Plane14  |
| HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows NT\CurrentVersion\LanguagePack\SurrogateFallback\Plane15  |
| HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows NT\CurrentVersion\LanguagePack\SurrogateFallback\Plane16  |
| HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows NT\CurrentVersion\LanguagePack\SurrogateFallback\Segoe UI   |
| HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\CTF\Compatibility\aa45509ac9b2d11e55784eddc52f966444d77099.tmp  |
| HKEY_LOCAL_MACHINE\Software\Microsoft\CTF\TIP\{0000897b-83df-4b96-be07-0fb58b01c4a4}\LanguageProfile\0x00000000\{0001bea3-ed56-483d-a2e2-aeae25577436}        |
| HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\CTF\TIP\{0000897b-83df-4b96-be07-0fb58b01c4a4}\LanguageProfile\0x00000000\{0001bea3-ed56-483d-a2e2-aeae25577436}\Enable |
| HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\CTF\  |
| HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\Microsoft\CTF\EnableAnchorContext   |
| HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\CTF\KnownClasses  |
| HKEY_LOCAL_MACHINE\Software\Microsoft\Windows\CurrentVersion  |
| HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\Microsoft\Windows\CurrentVersion\ProgramFilesDir  |
| HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\Microsoft\Windows\CurrentVersion\CommonFilesDir   |
| HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows\CurrentVersion\ProgramFilesDir  |
| HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows\CurrentVersion\CommonFilesDir   |

|  |
|--|
| HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows NT\CurrentVersion  |
| HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows NT\CurrentVersion\RegisteredOwner                                      |
| HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows NT\CurrentVersion\RegisteredOrganization                               |
| HKEY_LOCAL_MACHINE\Software\Microsoft\SQMClient\Windows\DisabledProcesses\   |
| HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\SQMClient\Windows\DisabledProcesses\A2D5EDFB                                   |
| HKEY_LOCAL_MACHINE\Software\Microsoft\SQMClient\Windows\DisabledSessions\  |
| HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\SQMClient\Windows\DisabledSessions\MachineThrottling                           |
| HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\SQMClient\Windows\DisabledSessions\GlobalSession                               |
| HKEY_CURRENT_USER\Software\Microsoft\RestartManager\Session0000  |
| HKEY_CURRENT_USER\Software\Microsoft\RestartManager\Session0000\Owner  |
| HKEY_CURRENT_USER\Software\Microsoft\RestartManager\Session0000\SessionHash  |
| HKEY_CURRENT_USER\Software\Microsoft\RestartManager\Session0000\Sequence   |
| HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\crypt32   |
| HKEY_LOCAL_MACHINE\SYSTEM\ControlSet001\services\crypt32\DebugHeapFlags  |
| HKEY_LOCAL_MACHINE\Software\Microsoft\Windows\CurrentVersion\Internet Settings                                       |
| HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\Microsoft\Windows\CurrentVersion\Internet Settings\DisableImprovedZoneCheck  |
| HKEY_LOCAL_MACHINE\Software\Policies\Microsoft\Windows\CurrentVersion\Internet Settings                              |
| HKEY_LOCAL_MACHINE\SOFTWARE\Policies\Microsoft\Windows\CurrentVersion\Internet Settings\Security_HKLM_only           |
| HKEY_CURRENT_USER\Software\Borland\Locales   |
| HKEY_LOCAL_MACHINE\Software\Borland\Locales  |
| HKEY_CURRENT_USER\Software\Borland\Delphi\Locales  |
| HKEY_CURRENT_USER\Software\Microsoft\RestartManager\Session0000\RegFiles0000   |
| HKEY_CURRENT_USER\Software\Microsoft\RestartManager\Session0000\RegSvc0000   |
| HKEY_CURRENT_USER\Software\Microsoft\RestartManager\Session0000\RegProcs0000   |
| HKEY_CURRENT_USER\Software\Microsoft\RestartManager\Session0000\JSCount  |
| HKEY_CURRENT_USER\Software\Microsoft\RestartManager\Session0000\ESCount  |
| HKEY_CURRENT_USER\Software\Microsoft\RestartManager\Session0000\RRCount  |
| HKEY_LOCAL_MACHINE\Software\Microsoft\Windows\Windows Error Reporting\WMR  |
| HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\Microsoft\Windows\Windows Error Reporting\WMR\Disable                        |
| HKEY_LOCAL_MACHINE\Software\Microsoft\Windows\CurrentVersion\Reliability   |
| HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\Microsoft\Windows\CurrentVersion\Reliability\ShutdownIgnorePredefinedReasons |
| HKEY_LOCAL_MACHINE\System\CurrentControlSet\Control\Nls\CustomLocale   |
| HKEY_LOCAL_MACHINE\SYSTEM\ControlSet001\Control\Nls\CustomLocale\en-US   |
| HKEY_LOCAL_MACHINE\System\CurrentControlSet\Control\Nls\ExtendedLocale   |

HKEY\_LOCAL\_MACHINE\SYSTEM\ControlSet001\Control\Nls\ExtendedLocale\en-US

HKEY\_LOCAL\_MACHINE\SOFTWARE\Wow6432Node\Microsoft\Windows\CurrentVersion\Reliability\UserDefined\1033

## EXECUTED COMMANDS

"C:\Users\user\AppData\Local\Temp\is-7GR0E.tmp\aa45509ac9b2d11e55784eddc52f966444d77099.tmp"  
/SL5="\$E01A2,140401,58744,C:\Users\user\AppData\Local\Temp\aa45509ac9b2d11e55784eddc52f966444d77099.exe"

"shutdown.exe" -r -f -t 0

## READ FILES

C:\Windows\SysWOW64\en-US\KERNELBASE.dll.mui

C:\Windows\System32\netmsg.dll

C:\Users\user\AppData\Local\Temp\aa45509ac9b2d11e55784eddc52f966444d77099.exe

C:\Windows\Globalization\Sorting\sortdefault.nls

C:\Windows\Fonts\staticcache.dat

\Device\KsecDD

C:\Users\user\AppData\Local\Temp\is-2l3F7.tmp\\_isetup\\_setup64.tmp

C:\Users\user\AppData\Local\Temp\is-2l3F7.tmp\license.key

## MUTEXES

CicLoadWinStaWinSta0

Local\MSCTF.CtfMonitorInstMutexDefault1

Local\RstrMgr3887CAB8-533F-4C85-B0DC-3E5639F8D511

Local\RstrMgr-3887CAB8-533F-4C85-B0DC-3E5639F8D511-Session0000

Inno

## MODIFIED REGISTRY KEYS

HKEY\_CURRENT\_USER\Software\Microsoft\RestartManager\Session0000

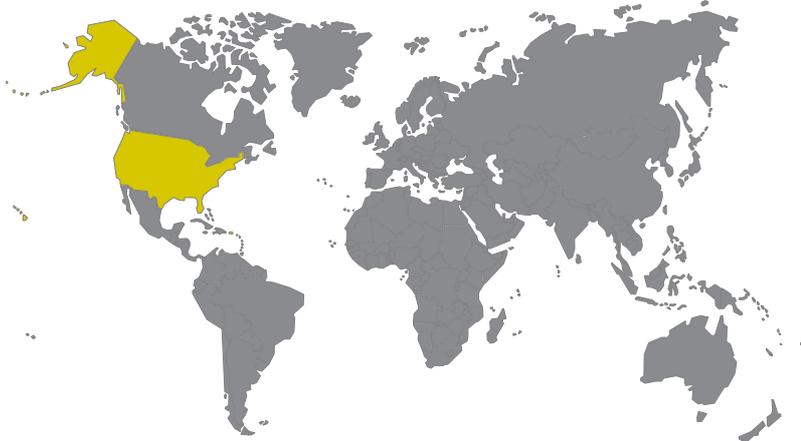
HKEY\_CURRENT\_USER\Software\Microsoft\RestartManager\Session0000\Owner

HKEY\_CURRENT\_USER\Software\Microsoft\RestartManager\Session0000\SessionHash

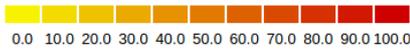
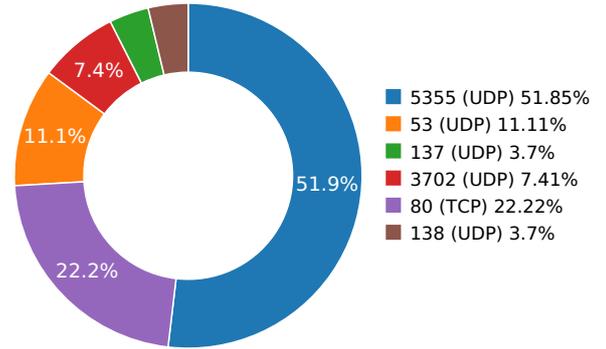
HKEY\_CURRENT\_USER\Software\Microsoft\RestartManager\Session0000\Sequence

## Network Behavior

### CONTACTED IPS



### NETWORK PORT DISTRIBUTION



| Name | IP            | Country       | ASN   | ASN Name                     | Trigger Process Type |
|------|---------------|---------------|-------|------------------------------|----------------------|
|      | 8.8.4.4       | United States | 15169 | Level 3 Communications, Inc. | Malware Process      |
|      | 23.67.250.139 | United States | 20940 | Akamai Technologies, Inc.    | Malware Process      |
|      | 23.67.250.18  | United States | 20940 | Akamai Technologies, Inc.    | OS Process           |
|      | 23.218.156.64 |               | 20940 | Akamai Technologies, Inc.    | OS Process           |
|      | 23.67.250.154 |               | 20940 | Akamai Technologies, Inc.    | Malware Process      |
|      | 23.67.250.17  |               | 20940 | Akamai Technologies, Inc.    | OS Process           |

### HTTP PACKETS

| Host  | Port | Method | Version | User Agent              | Count | Call Time During Execution(Sec) |
|---|------|--------|---------|-------------------------|-------|---------------------------------|
| www.msftncsi.com  | 80   | GET    | 1.1     | Microsoft NCSI          | 1     | 40.2993140221                   |
| <b>Path:</b> /ncsi.txt<br><b>URI:</b> http://www.msftncsi.com/ncsi.txt  |      |        |         |                         |       |                                 |
| ctldl.windowsupdate.com   | 80   | GET    | 1.1     | Microsoft-CryptoAPI/6.1 | 1     | 369.751300812                   |
| <b>Path:</b> /msdownload/update/v3/static/trustedr/en/disallowedcertstl.cab?3ed7f7e5fbdcae60<br><b>URI:</b> http://ctldl.windowsupdate.com/msdownload/update/v3/static/trustedr/en/disallowedcertstl.cab?3ed7f7e5fbdcae60 |      |        |         |                         |       |                                 |
| crl.microsoft.com   | 80   | GET    | 1.1     | Microsoft-CryptoAPI/6.1 | 1     | 375.149554968                   |
| <b>Path:</b> /pki/crl/products/CSPCA.crl<br><b>URI:</b> http://crl.microsoft.com/pki/crl/products/CSPCA.crl   |      |        |         |                         |       |                                 |

## DNS QUERIES

| Request  | Type |
|--|------|
| www.msftncsi.com   | A    |
| <b>Answers</b><br>- www.msftncsi.com.edgesuite.net (CNAME)<br>- 23.67.250.139 (A)<br>- 23.67.250.121 (A)<br>- a1961.g2.akamai.net (CNAME)  |      |
| ctldl.windowsupdate.com  | A    |
| <b>Answers</b><br>- ctldl.windowsupdate.nsatc.net (CNAME)<br>- 23.67.250.24 (A)<br>- 23.67.250.17 (A)<br>- a1621.g.akamai.net (CNAME)<br>- ctldl.windowsupdate.com.edgesuite.net (CNAME) |      |
| crl.microsoft.com  | A    |
| <b>Answers</b><br>- a1363.dscg.akamai.net (CNAME)<br>- crl.www.ms.akadns.net (CNAME)<br>- 23.67.250.18 (A)   |      |

## TCP PACKETS

| Call Time During Execution(sec) | Source IP | Dest IP       | Dest Port |
|---------------------------------|-----------|---------------|-----------|
| 40.2993140221                   | Sandbox   | 23.67.250.139 | 80        |
| 369.751300812                   | Sandbox   | 23.67.250.17  | 80        |
| 375.149554968                   | Sandbox   | 23.67.250.18  | 80        |

## UDP PACKETS

| Call Time During Execution(sec) | Source IP | Dest IP         | Dest Port |
|---------------------------------|-----------|-----------------|-----------|
| 3.19671082497                   | Sandbox   | 224.0.0.252     | 5355      |
| 3.21772003174                   | Sandbox   | 224.0.0.252     | 5355      |
| 3.22354793549                   | Sandbox   | 239.255.255.250 | 3702      |
| 3.26599502563                   | Sandbox   | 192.168.56.255  | 137       |
| 5.78115487099                   | Sandbox   | 224.0.0.252     | 5355      |
| 9.26417303085                   | Sandbox   | 192.168.56.255  | 138       |
| 31.4714858532                   | Sandbox   | 224.0.0.252     | 5355      |
| 34.6368119717                   | Sandbox   | 239.255.255.250 | 3702      |
| 35.6395959854                   | Sandbox   | 224.0.0.252     | 5355      |
| 37.6865999699                   | Sandbox   | 224.0.0.252     | 5355      |
| 38.2199659348                   | Sandbox   | 224.0.0.252     | 5355      |
| 40.2512550354                   | Sandbox   | 8.8.4.4         | 53        |
| 40.7790989876                   | Sandbox   | 224.0.0.252     | 5355      |
| 43.3421239853                   | Sandbox   | 224.0.0.252     | 5355      |
| 45.9042739868                   | Sandbox   | 224.0.0.252     | 5355      |
| 364.301962852                   | Sandbox   | 224.0.0.252     | 5355      |
| 366.885892868                   | Sandbox   | 224.0.0.252     | 5355      |
| 369.498893976                   | Sandbox   | 8.8.4.4         | 53        |
| 369.933310032                   | Sandbox   | 224.0.0.252     | 5355      |
| 372.491599798                   | Sandbox   | 224.0.0.252     | 5355      |
| 375.0454638                     | Sandbox   | 8.8.4.4         | 53        |

DETAILED FILE INFO

CREATED / DROPPED FILES

| FILE PATH  | TYPE AND HASHES   |
|--|---|
| C:\Users\User\AppData\Local\Temp\Is-7GR0E.Tmp\Aa45509ac9b2d11e55784eddc52f966444d77099.Tmp | <b>Type</b> : PE32 executable (GUI) Intel 80386, for MS Windows<br><b>MD5</b> : 832dab307e54aa08f4b6cdd9b9720361<br><b>SHA-1</b> : ebd007fb7482040ecf34339e4bf917209c1018df<br><b>SHA-256</b> : cc783a04ccbca4edd06564f8ec88fe5a15f1e3bb2<br><b>SHA-512</b> : 358d43522fd460eb1511708e4df22ea454a95e5t<br><b>Size</b> : 713.728 Kilobytes.      |
| C:\Users\User\AppData\Local\Temp\Is-2I3F7.Tmp\isetup\setup64.Tmp                           | <b>Type</b> : PE32+ executable (console) x86-64, for MS Windows<br><b>MD5</b> : e4211d6d009757c078a9fac7ff4f03d4<br><b>SHA-1</b> : 019cd56ba687d39d12d4b13991c9a42ea6ba03da<br><b>SHA-256</b> : 388a796580234efc95f3b1c70ad4cb44bfdc7ba(<br><b>SHA-512</b> : 17257f15d843e88bb78adcfb48184b8ce22109cc<br><b>Size</b> : 6.144 Kilobytes.         |
| C:\Users\User\AppData\Local\Temp\Is-2I3F7.Tmp\License.Key                                  | <b>Type</b> : PE32 executable (DLL) (GUI) Intel 80386, for MS Windows<br><b>MD5</b> : d82a429efd885ca0f324dd92afb6b7b8<br><b>SHA-1</b> : 86bbdaa15e6fc5c7779ac69c84e53c43c9eb20ea<br><b>SHA-256</b> : b258c4d7d2113dee2168ed7e35568c8e03341e2.<br><b>SHA-512</b> : 5bf0c3b8fa5db63205a263c4fa5337188173248b<br><b>Size</b> : 205.312 Kilobytes. |

MATCH YARA RULES

|             |
|-------------|
| MATCH RULES |
|-------------|

STATIC FILE INFO

|                                      |  |
|--------------------------------------|--|
| <b>File Name:</b>                    | 176928788.exe  |
| <b>File Type:</b>                    | PE32 executable (GUI) Intel 80386, for MS Windows          |
| <b>SHA1:</b>                         | aa45509ac9b2d11e55784eddc52f966444d77099                   |
| <b>MD5:</b>                          | a47573d164d84977ae6adf3db7119c4e                           |
| <b>First Seen Date:</b>              | 2017-12-23 18:52:36.410654 ( about a year ago)             |
| <b>Number Of Clients Seen:</b>       | 2  |
| <b>Last Analysis Date:</b>           | 2017-12-23 18:52:36.410654 ( about a year ago)             |
| <b>Human Expert Analysis Result:</b> | No human expert analysis verdict given to this sample yet. |

DETAILED FILE INFO

ADDITIONAL FILE INFORMATION

PE Headers

| PROPERTY               | VALUE   |
|------------------------|---|
| Magic Literal Enum     | 3   |
| File Type Enum         | 6   |
| Debug Artifacts        | []  |
| Number Of Sections     | 8   |
| Trid                   | [[77.7, u'Inno Setup installer'], [10.0, u'Win32 Executable Delphi generic'], [4.6, u'Win32 Dynamic Link Library (generic)'], [3.1, u'Win32 Executable (generic)'], [1.4, u'Win16/32 Executable Delphi generic']]   |
| Compilation Time Stamp | 0x2A425E19 [Fri Jun 19 22:22:17 1992 UTC] [SUSPICIOUS]  |
| LegalCopyright         |   |
| FileVersion            |   |
| CompanyName            |   |
| Comments               | This installation was built with Inno Setup.  |
| ProductName            | ---   |
| ProductVersion         | 1.2   |
| FileDescription        |   |
| Translation            | 0x0000 0x04b0   |
| Entry Point            | 0x40aa98 (CODE)   |
| Machine Type           | Intel 386 or later - 32Bit  |
| File Size              | 388198  |
| Ssdeep                 | 6144:XP7OollvnL8+Ee0CYDxbGKls0flazlqSXbAkuWxJEknSGZMxhSLupnmd/tnl05i:7bllvnL8+iDR/67azlqqnHTEknjMxIT  |
| Sha256                 | 1f5267c16780258388ef8ad44ee302fb0fe4fc557de93150787deb67bb101f8c  |
| Exifinfo               | {[u'EXE:FileSubtype': 0, u'File:FilePermissions': u'rw-r--', u'SourceFile': u'/nfs/fvs/valkyrie_shared/core/valkyrie_files/a/a/4/5/aa45509ac9b2d11e55784eddc52f966444d77099', u'EXE:ProductName': u'___', u'File:MIMEType': u'application/octet-stream', u'File:FileAccessDate': u'2017:12:23 18:52:23+00:00', u'EXE:InitializedDataSize': 17920, u'File:FileModifyDate': u'2017:12:23 18:52:22+00:00', u'EXE:FileVersionNumber': u'0.0.0.0', u'EXE:FileVersion': u'', u'File:FileSize': u'379 kB', u'EXE:CharacterSet': u'Unicode', u'EXE:MachineType': u'Intel 386 or later, and compatibles', u'EXE:FileOS': u'Win32', u'EXE:ProductVersion': u'1.2', u'EXE:ObjectFileType': u'Executable application', u'File:FileType': u'Win32 EXE', u'EXE:CompanyName': u'', u'File:FileName': u'aa45509ac9b2d11e55784eddc52f966444d77099', u'EXE:ImageVersion': 6.0, u'File:FileTypeExtension': u'.exe', u'EXE:OSVersion': 1.0, u'EXE:PEType': u'PE32', u'EXE:TimeStamp': u'1992:06:19 22:22:17+00:00', u'EXE:FileFlagsMask': u'0x003f', u'EXE:LegalCopyright': u'', u'EXE:LinkerVersion': 2.25, u'EXE:FileFlags': u'(none)', u'EXE:Subsystem': u'Windows GUI', u'File:Directory': u'/nfs/fvs/valkyrie_shared/core/valkyrie_files/a/a/4/5', u'EXE:FileDescription': u'', u'EXE:EntryPoint': u'0xaa98', u'EXE:SubsystemVersion': 4.0, u'EXE:CodeSize': 41472, u'EXE:Comments': u'This installation was built with Inno Setup.', u'File:FileInodeChangeDate': u'2017:12:23 18:52:23+00:00', u'EXE:UninitializedDataSize': 0, u'EXE:LanguageCode': u'Neutral', u'ExifTool:ExifToolVersion': 10.1, u'EXE:ProductVersionNumber': u'0.0.0.0']}] |
| Mime Type              | application/x-dosexec   |
| Imphash                | b9a08f46a1a607d0dcccfe0d020e621c1   |

PE Sections

| NAME   | VIRTUAL ADDRESS | VIRTUAL SIZE | RAW SIZE | ENTROPY        | MD5                              |
|--------|-----------------|--------------|----------|----------------|----------------------------------|
| CODE   | 0x1000          | 0xa1d0       | 0xa200   | 6.63550844572  | a49ce5969afc99027d2ca29c05b382dc |
| DATA   | 0xc000          | 0x250        | 0x400    | 2.74012451302  | 9b2268ed5360951559d8041925d025fb |
| BSS    | 0xd000          | 0xe94        | 0x0      | 0.0            | d41d8cd98f00b204e9800998ecf8427e |
| .idata | 0xe000          | 0x97c        | 0xa00    | 4.47624034315  | 680e72267857783c13b81c8d773f04e9 |
| .tls   | 0xf000          | 0x8          | 0x0      | 0.0            | d41d8cd98f00b204e9800998ecf8427e |
| .rdata | 0x10000         | 0x18         | 0x200    | 0.245146276048 | 3562a9a4f904acbe99cae8308cf0e38a |
| .reloc | 0x11000         | 0x91c        | 0x0      | 0.0            | d41d8cd98f00b204e9800998ecf8427e |
| .rsrc  | 0x12000         | 0x2f9d       | 0x2c00   | 4.5678230775   | f470b4f8bb4fb2768259d85c98e94683 |

### PE Imports

- kernel32.dll
  - DeleteCriticalSection
  - LeaveCriticalSection
  - EnterCriticalSection
  - InitializeCriticalSection
  - VirtualFree
  - VirtualAlloc
  - LocalFree
  - LocalAlloc
  - WideCharToMultiByte
  - TlsSetValue
  - TlsGetValue
  - MultiByteToWideChar
  - GetModuleHandleA
  - GetLastError
  - GetCommandLineA
  - WriteFile
  - SetFilePointer
  - SetEndOfFile
  - RtlUnwind
  - ReadFile
  - TlsAlloc
  - GetStdHandle
  - GetFileSize
  - GetSystemTime
  - GetFileType
  - ExitProcess
  - CreateFileA
  - CloseHandle
- user32.dll
  - MessageBoxA
- oleaut32.dll
  - VariantChangeTypeEx
  - VariantCopyInd
  - VariantClear
  - SysStringLen
  - SysAllocStringLen
- advapi32.dll
  - RegQueryValueExA
  - RegOpenKeyExA
  - RegCloseKey
  - OpenProcessToken
  - LookupPrivilegeValueA
- kernel32.dll
  - WriteFile
  - VirtualQuery
  - VirtualProtect
  - VirtualFree
  - VirtualAlloc
  - Sleep
  - SizeofResource
  - SetLastError

- SetFilePointer
- SetErrorMode
- SetEndOfFile
- RemoveDirectoryA
- ReadFile
- LockResource
- LoadResource
- LoadLibraryA
- IsDBCSLeadByte
- GetWindowsDirectoryA
- GetVersionExA
- GetVersion
- GetUserDefaultLangID
- GetSystemInfo
- GetSystemDirectoryA
- GetSystemDefaultLCID
- GetProcAddress
- GetModuleHandleA
- GetModuleFileNameA
- GetLocaleInfoA
- GetLastError
- GetFullPathNameA
- GetFileSize
- GetFileAttributesA
- GetExitCodeProcess
- GetEnvironmentVariableA
- GetCurrentProcess
- GetCommandLineA
- GetACP
- InterlockedExchange
- FormatMessageA
- FindResourceA
- DeleteFileA
- CreateProcessA
- CreateFileA
- CreateDirectoryA
- CloseHandle
- user32.dll
  - TranslateMessage
  - SetWindowLongA
  - PeekMessageA
  - MsgWaitForMultipleObjects
  - MessageBoxA
  - LoadStringA
  - ExitWindowsEx
  - DispatchMessageA
  - DestroyWindow
  - CreateWindowExA
  - CallWindowProcA
  - CharPrevA
- comctl32.dll
  - InitCommonControls
- advapi32.dll
  - AdjustTokenPrivileges

## PE Resources

- {u'lang': u'LANG\_DUTCH', u'name': u'RT\_ICON', u'offset': 74580, u'sha256': u'f59f62e7843b3ff992cf769a3c608acd4a85a38b3b302cda8507b75163659d7b', u'type': u'GLS\_BINARY\_LSB\_FIRST', u'size': 296}
- {u'lang': u'LANG\_DUTCH', u'name': u'RT\_ICON', u'offset': 74876, u'sha256': u'dc785b2a3e4ea82bd34121cc04e80758e221f11ee686fcfd87ce49f8e6730b22', u'type': u'GLS\_BINARY\_LSB\_FIRST', u'size': 1384}
- {u'lang': u'LANG\_DUTCH', u'name': u'RT\_ICON', u'offset': 76260, u'sha256': u'ca8fc96218d0a7e691dd7b95da05a27246439822d09b829af240523b28fd5bb3', u'type': u'data', u'size': 744}
- {u'lang': u'LANG\_DUTCH', u'name': u'RT\_ICON', u'offset': 77004, u'sha256': u'3bbacbad1458254c59ad7d0fd9bea998d46b70b8f8dcfc56aad561a293ffdae3', u'type': u'data', u'size': 2216}
- {u'lang': u'LANG\_NEUTRAL', u'name': u'RT\_STRING', u'offset': 79220, u'sha256': u'2c0d32398e3c95657a577c044cc32fe24fa058d0c32e13099b26fd678de8354f', u'type': u'data', u'size': 754}
- {u'lang': u'LANG\_NEUTRAL', u'name': u'RT\_STRING', u'offset': 79976, u'sha256': u'840989e0a92f2746ae0b8e3efc1a39bcc17e82df3634c1643d76141fc75bb3', u'type': u'data', u'size': 780}
- {u'lang': u'LANG\_NEUTRAL', u'name': u'RT\_STRING', u'offset': 80756, u'sha256': u'26bda4da3649a575157a6466468a0a86944756643855954120fd715f3c9c7f78', u'type': u'data', u'size': 718}
- {u'lang': u'LANG\_NEUTRAL', u'name': u'RT\_STRING', u'offset': 81476, u'sha256': u'd786490af7fe66042fb4a7d52023f5a1442f9b5e65d067b9093d1a128a6af34c', u'type': u'data', u'size': 104}
- {u'lang': u'LANG\_NEUTRAL', u'name': u'RT\_STRING', u'offset': 81580, u'sha256':

```
u'00a0794f0a493c167f64ed8b119d49bdc59f76bb35e5c295dc047095958ee2fd', u'type': u'data', u'size': 180}
{u'lang': u'LANG_NEUTRAL', u'name': u'RT_STRING', u'offset': 81760, u'sha256':
u'34973a8a33b90ec734bd328198311f579666d5aeb04c94f469ebb822689de3c3', u'type': u'data', u'size': 174}
{u'lang': u'LANG_NEUTRAL', u'name': u'RT_RCDATA', u'offset': 81936, u'sha256':
u'13d4b048fb409d392cf3457c5135899477ed8c44fdd17abbe6dbe3f3bf88dfd8', u'type': u'data', u'size': 44}
{u'lang': u'LANG_ENGLISH', u'name': u'RT_GROUP_ICON', u'offset': 81980, u'sha256':
u'44b095a62d7e401671f57271e6cada367bb55cf7b300ef768b3487b841facd3c', u'type': u'MS Windows icon resource - 4 icons, 16x16, 16 colors',
u'size': 62}
{u'lang': u'LANG_ENGLISH', u'name': u'RT_VERSION', u'offset': 82044, u'sha256':
u'd1d9016a2739c0625c90e2b78a2ae68f8203f22f0078f6d5d9f12e6c126f323f', u'type': u'data', u'size': 1268}
{u'lang': u'LANG_ENGLISH', u'name': u'RT_MANIFEST', u'offset': 83312, u'sha256':
u'356ca8abf11d97bf9dcbff47c04bf1ddcb8685ef84d38e6850ec6c28a37655b9', u'type': u'XML 1.0 document, ASCII text, with CRLF line terminators',
u'size': 1580}
```

## CERTIFICATE VALIDATION

- Certificate Validation is not Applicable ?

## SCREENSHOTS

